

BRIEFER ARTICLES.

LASIODIPLODIA E. & E., n. gen.—*With Plate V.*—Perithecia collected in a stroma, clothed with brown mycelium; basidia and sporules with paraphyses intermingled; otherwise as in *Diplodia*.

Lasiodiplodia tubericola E. & E., n. sp.—Perithecia globose 250–350 μ (inner cavity 175–190 μ), clothed outside with an abundant brown septate sparingly branched mycelium, stromatically connected in a small hemispherical erumpent tubercle about 1^{mm} diam. Sporules elliptical, short stipitate, hyaline and continuous at first, becoming brown and uniseptate; 18–22 \times 11–14 μ ; not constricted; overtopped by filiform processes 45–55 μ long, resembling paraphyses and springing with the basidia from the proligerous layer.

The above fungus was found on some sweet potatoes that were brought to the Louisiana Experiment Station from Java, in the spring of 1894. The potatoes appeared sound, and were planted a day or two after they were received. Failing to grow, they were dug up some ten days later, and were found to be rotting. The fungus causing the rot was sent to Mr. Ellis to be identified, and he pronounced it a new genus, giving it the name *Lasiodiplodia tubericola*.

Externally, sweet potatoes attacked by this fungus, show dark shriveled patches, over which are scattered little black pustules. The tissue within is slightly spongy, rather moist, and in color is a mixed olive-green and grey. The olive-green parts show an abundant, dark-brown, septate, branching mycelium running between and through the cells of the host (fig. 1). It may be added also, that the mature brown spores frequently show longitudinal striations (fig. 4).

As *Lasiodiplodia* has not been previously described, and the diseases of the sweet potato have been pretty thoroughly studied in the United States, it seems more than probable that the form is an imported one. Sweet potatoes brought from Java in February, 1895, were found affected by the same fungus when they were received at Baton Rouge, so in this case they could not have been infected from the soil at the Louisiana station.

Cultures of the fungus have been undertaken, looking to the working-out of its life history.—IDA CLENDENIN, *The Girls' High School, Brooklyn, N. Y.*

EXPLANATION OF PLATE V.—Fig. 1.—Mycelium of *Lasiodiplodia tubericola* passing through and between the cells of the host.

Fig. 2. Perithecium of same. Paraphyses and immature spores within. Three mature spores without.

Fig. 3. Portion of perithecium more highly magnified.

Fig. 4. Mature spores and external brown mycelium.